







URBAN AND REGIONAL DEVELOPMENT

MUR DM 118 - Paperless Urbanism. Urban planning innovation and the digital transition of spatial government

Funded By	MINISTERO DELL'UNIVERSITA' E DELLA RICERCA [P.iva/CF:97429780584] Politecnico di TORINO [P.iva/CF:00518460019]
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Context of the research activity	The research explores the possibility of defining strategies, addresses and operational proposals for the innovation of urban planning procedures, the integrated management of services and the digital transition of urban planning and spatial government in the City of Turin. It, therefore, investigates ways and forms for the organisation's rationalisation, processing and dissemination of urban planning data relating to the General municipal regulatory plan (PRG) and it's implementing devices (from building permits to executive urban planning instruments). Progetto finanziato nell'ambito del PNRR - DM 118/2023, CUP E14D23001910006

For good territorial government, it is a shared conviction that it is essential to have an efficient and effective information system derived from local planning and embedded in a subsidiary and cooperative administration culture. It is equally important to link this activity to the reflection on the necessary change in the character and nature of the spatial plan: in fact, it is open to what, i.e. what content, plans need to be digitised.

Therefore, the research aims to consider some possible evolutionary lines of the general and implementation urban planning instrumentation and the possible ways of digitisation to keep up with the flexibility and speed required by the current condition.

- It, therefore, investigates ways and forms for a rationalisation of the organisation, processing and dissemination of urban planning data to:
- make the methods and procedures for drafting the Turin City Council's Prg more effective and, at a later stage, those for its implementation and monitoring
- to increase cooperation and functional integration between institutional levels (Municipality of Turin, Metropolitan City of Turin, Piedmont Region) in relation to knowledge concerning their respective areas of competence
- to increase cooperation and support to private subjects in implementing the

Objectives

contents of general town planning.

In particular, the research aims at defining:

- a) innovative rules and tools for general and implementation urban planning (glossaries, specifications and tools for the drafting of executive urban planning tools and building permits "normalised" with respect to the general plan and their preservation within an "urban planning database")
- b) a kit of the "basic data" of the general urban planning and implementation of the General regulatory plan (PRG), in the logic of a "collaborative knowledge" both between public bodies and between public and private bodies, i.e. able to dialogue both with the Regional Infrastructure for Geographic Information and to support more effective and efficient implementation of the General regulatory plan by private parties.

The use of digital tools for urban planning can include the creation of three-dimensional spatial models, the integration of geographical data, the generation of interactive maps, the spatial analysis of data and the simulation of urban scenarios. In essence, paperless urbanism aims to overcome the limitations of traditional paper-based processes, offering a more comprehensive and dynamic view of the territory and supporting more effective and sustainable urban planning.

A critical aspect to be considered is the importance of keeping sight of the information product (i.e. the urban planning tool) by favouring the computerised process of digitisation, thus risking the loss of the content and meaning of the product.

Skills and competencies for the development of the activity

- Excellent knowledge of formation and approval procedures, form and contents of PRG ex L. 56/1977 and its amendments and supplements of Piedmont.
- Excellent knowledge of determining the requirements of urban standards ex L. 56/1977 and its amendments and supplements of Piedmont and of the General municipal plan (PRG) of the City of Turin 1995 and its variants.
- Excellent knowledge of spatial planning reform and territorial government at national and Piedmont level.
- Excellent knowledge of GIS technology, in particular of ESRI software (ArcGIS Desktop and others) and other open-source applications (QGIS)
- Excellent skills in data geoprocessing techniques in the field of GIS for the realisation of new information layers to support analyses and urban plans
- Excellent knowledge of software for ecosystem assessment, integrated and interoperable with GIS applications (e.g. InVEST, SimulSoil).